

Abstract of the Invention

The invention provides a micro-electro-mechanical-system (MEMS) mirror device, comprising: a mirror having a 2-
5 dimensional rotational articulated hinge at a first end, and having a 1-dimensional rotational articulated hinge at a second end opposite the first end; a movable cantilever connected to the mirror through the 1-dimensional rotational articulated
10 2-dimensional rotational articulated hinge and connected to the movable cantilever; whereby movement of said movable cantilever causes rotation of the mirror in a first axis of rotation, and the mirror is also rotatable about a second torsional axis of rotation perpendicular to said first axis of rotation.